In the Claims:

1. (currently amended) A method of [reducing to one dimension the inherently multi-dimensional space of the error probabilities of a pattern classification system] classifying a plurality of items of unknown classification from at least one class of interest as authentic or spurious, comprising:

[an analysis of the class-specific] receiving a probability distribution[s] for a plurality of authentic items within the at least one class of interest; [and

a mapping of the multi-dimensional space (a vector) to one dimension (a scalar)] receiving a probability distribution for a plurality of spurious items outside the at least one class of interest;

combining the authentic and spurious probability distributions; and

transforming the combined probability distributions onto a normalized scale.

2. (currently amended) A method according to claim 1, [wherein the one dimensional space is modified, for example, to be a scale linear in probability] further comprising defining at least one decision rule based on the normalized scale and independent from the authentic and spurious probability distributions from which the items of unknown classification are modeled.

3. (currently amended) A method according to claim 1, wherein the [one dimensional space is based on likelihood in the original multi-dimensional space of error probabilities] step of transforming comprises:

defining at least two regions of the combined probability distributions; and

mapping the at least two regions onto the normalized scale.

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4. (currently amended) A method according to claim 1, wherein the [one dimensional space is based on a ratio of probabilities of an error from the original multi-dimensional space of error probabilities] normalized scale ranges from 0 to 100.

5. (new) A method according to claim 3, wherein the mapping is performed through linear interpolation.

6. (new) A method according to claim 3, wherein the at least two regions comprise varying degrees of authenticity.

7. (new) The method of claim 1, further comprising receiving at least one optional transform parameter with which the authentic and spurious probability distributions are combined.

8. (new) The method of claim 1, wherein the normalized scale is linear in cumulative probability.

9. (new) The method of claim 1, wherein the at least two regions comprise a false-rejection region and a false-acceptance region, and wherein the normalized scale is linear in a ratio of the false-rejection region to the false-acceptance region.

10. (new) A pattern recognition system adapted to classify a plurality of items of unknown classification from at least one class of interest as either authentic or spurious, comprising:

a transformer constructor adapted to receive input in the form of class-specific probability distributions; and

a transformer adapted to automatically transform the class-specific probability distributions onto a normalized scale.

11. (new) A pattern recognition system according to claim 10, further comprising means for selectively defining at least one decision rule based on the normalized scale and

independent from the class-specific probability distributions from which the items of unknown classification are modeled.

12. (new) The pattern recognition system of claim 10, wherein the constructor comprises means for combining the class-specific probability distributions.

13. (new) The pattern recognition system of claim 12, wherein the transformer comprises:

means for defining at least two regions of the combined class-specific probability distributions; and

means for mapping the at least two regions onto the normalized scale.

14. (new) The pattern recognition system of claim 10, wherein the normalized scale ranges from 0 to 100.

15. (new) The pattern recognition system of claim 1, wherein the transformer is further adapted to receive input in the form of at least one optional transform parameter.

16. (new) The pattern recognition system of claim 13, wherein the at least two regions represent varying degrees of authenticity.

17. (new) The pattern recognition system of claim 10, wherein the normalized scale is linear in cumulative probability.

18. (new) The pattern recognition system of claim 13, wherein the at least two regions comprise a false-rejection region and a false-acceptance region, and wherein the normalized scale is linear in a ratio of the false-rejection region to the false-acceptance region.

19. (new) The pattern recognition system of claim 11, wherein the at least one decision rule defines a single threshold number from which to determine whether the item of unknown classification is authentic or spurious.

20. (new) A method of classifying a plurality of items of unknown classification from at least one class of interest as authentic or spurious, comprising:

receiving a plurality of output statistics from a pattern recognition system;

constructing a transformer for each class of items based on the output statistics;

applying the transform to the item of unknown classification whereby a new decision space is created; and

transforming the decision space into a normalized scale whereby the item of unknown classification is classified.

Claims 1-4 are pending and claims 5-20 are new.

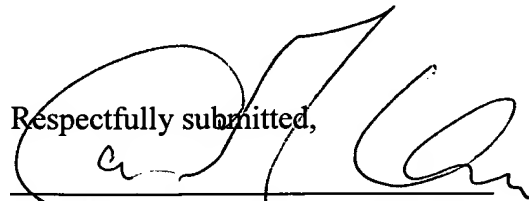**A.   *Claims 1-4, as amended, are not indefinite.***

Claims 1-4 have been amended to remove the "the inherently multi-dimensional space," "the error probabilities," and "the class-specific probability distributions" language objected to by the Examining Attorney. Accordingly, Applicant respectfully submits that the Examining Attorney's objection is now rendered moot.

B.   *Claims 1-4, as amended, are not are directed to non-statutory subject matter.*

Claims 1-4 have been amended to put them in a form directed towards patentable subject matter. Specifically, claim 1 (and claims 2-4 which depend therefrom) are now directed to a method having practical application. Accordingly, Applicant respectfully submits that the Examining Attorney's objection is now rendered moot. Applicant has also added claims 5-9 which depend from claim 1, claims 10-19 which are directed to a pattern recognition system, and claim 20 which is directed to a method of classifying a plurality of items of unknown classification from at least one class of interest as authentic or spurious.

It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. If the Examiner believes for any reason that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,

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Enclosure